# MicroBooNE WBS 1.8 PMT Internal Review Cost & Schedule 1.21.2011 Arati Prakash

### Outline

- Projected Schedule
- Upcoming items
- Costs

### Projected Schedule

- The PMT system progresses on schedule with a ready-to-install date of Q2 2012.
- This incorporates ample time for longevity tests and remaining WLS humidity tests.
- The PMT group will be ready for Director's/CD-2 review by mid February, after implementing recommendations from this review.

### Projected Schedule



Ready to install Q2 2012.

## Upcoming items in the schedule

1.8.3.3	PMT Mounts	1.8.3.3	
1.8.3.3.4	Deliver PEEK post and perforated steel plate	2/15/11	3/1/11
1.8.3.3.5	Cut PEEK post	3/1/11	3/15/11
1.8.3.3.6	Cut perforated steel plate	3/15/11	3/30/11
1.8.3.4	WLS Plates	1.8.3.4	
1.8.3.4.1	TPB Coating R&D - Humidity tests	2/1/11	4/1/11
1.8.3.4.4	Deliver all WLS Plate Components	4/15/11	5/1/11
1.8.4.1	Dewar Test Stand	1.8.4.1	
1.8.4.1.5	Perform PMT tests in air	1/20/11	2/28/11
1.8.4.1.6	Perform PMT cold tests in LN2	4/1/11	6/7/11
1.8.4.1.7	Perform vertical slice test	10/1/11	

## Upcoming items in the schedule

1.8.5.2	PMT Feed through	1.8.5.2	
1.8.5.2.3	Determine feed-thru configuration in flange	1/15/11	2/15/11
1.8.5.2.4	Prep PO for flange and feed-thrus	3/1/11	3/5/11
1.8.5.2.5	Deliver flange and feed-thrus	3/15/11	4/1/11
1.8.5.2.6	Fabricate PMT Feed through	4/1/11	5/1/11
1.8.5.3	Cables	1.8.5.3	
1.8.3.5.4	Prep Purchase Req and award PO for all Connectors	3/1/11	3/5/11
1.8.3.5.5	Deliver Connectors	3/15/11	4/1/11
1.8.3.5.6	Fabricate primary PMT cables with connectors	4/1/11	4/15/11
1.8.5.3.7	Fabricate splitters and splitter box	5/15/11	6/1/11
1.8.5.4	Support Rack	1.8.5.4	
1.8.5.4.3	Specify rail/support interface with vessel	6/23/10	7/21/10
1.8.5.4.4	Design support Rack	12/1/10	2/1/11

# Costs

Total Remaining Costs				
ltem	Cost	Quantity	Total Cost	Purchaser
PEEK for posts (90 posts)	63	80	5040	MIT
Perforated steel for backplates	102	4	408	MIT
SHV connectors + pins for primary cables	13	39	507	MIT
Patch panel materials - aluminum, PEEK?				MIT
SHV connectors + teflon for intermediate cables	13	39	507	MIT
Flange feed-thrus	365	10	3650	MIT
Sockets to connect to pins on the feed-thrus	0	39	0	
G10 tube to protect exposed cables	16	12	192	MIT
SHV connectors for both ends of external cables	11	78	858	MIT
Splitters	28	39	1092	MIT
Support Rack Materials & Fabrication	29000	1	29000	Princeton
Total MIT			12254	
Total Princeton			29000	

### Costs

- The rack is on the project.
- All other costs are off-project (MIT, St. Mary's)
- We were a few \$k off budget from our original estimates (that's it!)
- Overruns covered by MIT.

